a body without space, a succession without time, an effect without cause, etc.; attempt to make abstractions of the axioms with which Locke prefers to amuse himself, to wit, what is, is; it is impossible for the same thing to be, and not to be; that is, make an abstraction of the idea of being and of identity, and there is made an end of all sciences, they can neither advance nor be sustained.

Locke also pretends (*ibid.*, § 9) that axioms are not the truths which we first know. Yes, without doubt, once more, under their actual form, axioms are not primitive knowledge; but, under their real form, as laws attached to the exercise of the understanding and implied in our judgments, they are so truly primitive that without them no knowledge could be acquired. They are not primitive in the sense that they are the first truths which we know, but in the sense that without them we could know nothing. Here again recurs the perpetual confusion of the historical order and the logical order of human knowledge. In the chronological order, we do not commence by knowing axioms, the laws of our understanding; but, logically, without axioms, all truth is impossible; without the action, unperceived, but real, of the laws of thought, no thought, no judgment, is either legitimate or possible.

Finally, Locke combats axioms by a celebrated argument, very often renewed since, to wit, that axioms are only frivolous propositions, because they are identical propositions (*ibid.*, § 11). It is Locke, I believe, who introduced, or at least gave currency to the expression, identical proposition, in philosophic language. It signifies a judgment, a proposition, in which an idea is affirmed by itself, or in which we affirm of a thing what we already know of it. Elsewhere (Chap. VIII., *of trifling propositions;* § 3, *of identical propositions*), Locke shows that identical propositions are only propositions purely verbal. "Let any one repeat as often as he pleases, that the will is the will . . . a law is a law . . . obligation is obligation . . . right is right . . . wrong is wrong . . ., what is this more than trifling with words?" "It is," says he,

but like a monkey shifting his oyster from one hand to the other; and had he but words, might, no doubt, have said, Oyster in right hand is subject, and oyster in left hand is predicate: and so might have made a self-evident proposition of oyster, *i. e.*, oyster is oyster." Hence the condemnation of the axiom: What is, is, etc. But it is not exact, it is not equitable to concentrate all axioms, all principles, all primitive and necessary truth into the axiom: What is, is; it is impossible for the same thing to be, and not to be; and to the vain and ridiculous examples of Locke, I oppose as examples, the following axioms, which you already know: Quality supposes a subject, succession supposes time, body supposes space, the finite supposes the infinite, variety supposes unity, phenomenon supposes substance and being; in a word, all the necessary truths which so many lectures must have fixed in your minds. The question is to know whether these are identical axioms. Locke therefore maintains that time is reducible to succession, or succession to time; space to body, or body to space; the infinite to the finite, or the finite to the infinite; cause to effect, or effect to cause; plurality to unity, or unity to plurality; phenomenon to being, or being to phenomenon, etc.; and according to his system, Locke ought to have maintained this; but it must now be evident enough to you that this pretension, and the system upon which it is founded, do not bear the scrutiny of reason.

This proscription of axioms as identical, Locke extends to other propositions which are not axioms; in general, he perceives many more identical propositions than there are. For example, gold is heavy, gold is fusible, are for Locke (*ibid.*, §§ 5 and 13) identical propositions; however, nothing is less true: we do not in these propositions affirm the same of the same. A proposition is called identical whenever the attribute is contained in the subject, so that the subject cannot be conceived as not containing the attribute. Thus, when you say body is solid, I say that you make an identical proposition, because it is impossible to have the idea of body without that of solid. The idea of body is perhaps

more extended than that of solid, but it is primarily and essentially the same. The idea of solid being then for you the essential quality of body, to say that body is solid, is to say nothing else than that body is body. But when you say that gold is fusible, you affirm of gold a quality which may be contained in it, and which may not be contained in it. It implies a contradiction to assert that body is not solid; but it does not imply a contradiction to assert that gold is not fusible. Gold may have been a long time known solely as solid, as hard, as yellow, etc.; and if such or such an experiment had not been made, if it had not been put in the fire, it would not be known as fusible. When therefore you affirm of gold that it is fusible, you recognize a quality of it which you may not have previously known in regard to it; you do not then affirm the same of the same, at least the first time that you express this proposition. Without doubt, at the present time, in the laboratory of modern chemistry, when the fusibility of gold is a quality perfectly and universally known, to say that gold is fusible, is to repeat what is already known, is to affirm of the word gold what is already comprehended in its received signification; but the first one who said that gold is fusible, far from making a tautology, expressed, on the contrary, the result of a discovery, and a discovery not without difficulty and importance. I ask whether, in his times, Locke would have made merry with this proposition: Air has weight, as an identical and frivolous proposition? No, certainly; and why? Because at that time weight was a quality of air which had scarcely been demonstrated by the experiments of Toricelli and Pascal. Those which have proved the fusibility of gold are older by some thousands of years; but if: Air has weight, is not an identical proposition, on the same ground as: Gold is fusible, it is not an identical proposition, since the first who announced it did not affirm in the second term what he had already affirmed in the first.

Moreover, wonder at the destiny of identical truths: Locke sees many more than there are, and ridicules them; the school of

Locke sees many more still, but far from accusing identity, it applauds it, and goes so far as to say that every proposition is true only on condition of being identical. Thus, by a strange progress, what Locke had branded with ridicule, as a sign of frivolity, became in the hands of his successors a title of legitimacy and truth. The identity which Locke ridiculed was only an illusory identity, and behold now this pretended identity, so much mocked at, and indeed very wrongly, since it was not real, behold it celebrated and vaunted, with less reason still, as the triumph of truth and the last conquest of science and analysis. Now, if all true propositions are identical, since every identical proposition, frivolous or not, as we follow Locke or his disciples, is, according to both, only a verbal proposition, it follows that the knowledge of all possible truths is only a verbal knowledge; and thus, when we think we are learning sciences or systems of truth, we are only translating one word into another, we are only learning words, we are only learning language: hence the famous principle that all sciences are only languages, dictionaries well or badly made, and hence the reduction of the human mind to grammar.*

I pass to other theories which remain to be examined in the fourth book of the *Essay on the Human Understanding*.

Chap. XVII. "*Of Reason.*"—I have scarcely any thing but eulogy to bestow upon this chapter. Locke in it shows that the syllogism is not the only nor the principal instrument of reason (§ 4). The evidence of demonstration is not the only evidence; there is also the intuitive evidence upon which Locke himself has founded the evidence of demonstration, and a third sort of evidence which Locke has misconceived, the evidence of induction. Now, the syllogism is of no service to the evidence of induction,

* See on the pretended identity of certain propositions, First Series, Vol. 1, Course of 1817, Lecture 8, p. 269–274; Lecture 9, p. 277–284; Vol. 3, Lecture 3, p. 136; Vol 5, Lecture 3, p. 57, etc.; and on the famous principle that all science is only a well-made language, see especially First Series, Vol. 3, Lecture 3, p. 140; see also in this Vol. the close of Lecture 20, on Words.

for it goes from the general to the particular, whilst induction goes from the particular to the general. The syllogism is of no more use to intuition, which is direct knowledge, without any intermediation. It is therefore only useful for the evidence of demonstration. But Locke does not stop there; he goes so far as to pretend that the syllogism adds nothing to our knowledge, that it is only a means of disputing (§ 6). Here I recognize the language of a man belonging to the close of the seventeenth century, still engaged in the movement of the reaction against scholasticism. Scholasticism had admitted, like Locke, intuitive evidence and demonstrative evidence: like Locke also it had forgotten the evidence of induction; besides, condemned not to choose for itself and not to examine its principles, it had scarcely employed any thing else than demonstration, and consequently it had made the syllogism its favorite weapon. A reaction against scholasticism was therefore necessary and legitimate: but every reaction goes too far; hence, the proscription of the syllogism, a blind and unjust proscription; for deductive knowledge is real knowledge. There are two things in the syllogism, the form and the foundation. The foundation is the special process by which the human mind goes from the general to the particular; and this is certainly a process of which particular account must be taken in a faithful and complete description of the human mind. It is not the work of the schools, it is common to the ignorant and the learned, and it is an original and fecund principle of knowledge and truth, since it is that which gives all consequences. As to the form so well described and so well developed by Aristotle, it can without doubt be abused; but it has a very useful employment. In general, all reasoning which cannot be put under this form is vague reasoning, which must be guarded against; whilst every true demomstration naturally lends itself to this form. The syllogistic form, it is true, is often only a counterproof by which we account for a deduction already obtained, but it is a valuable counterproof, a sort of guarantee of rigor and exactness of which it would not be wise to deprive ourselves. It is

not true to say that the syllogism lends itself to the demonstration of the false as well as the true; for let one take in the order of deduction any error, and I defy him to put it into a regular syllogism. The only remark which holds good is, that the human mind is not altogether in the syllogism, neither in the process which constitutes it, nor in the form which expresses it, because the reason is not entire in reasoning, and because all evidence is not reducible to the evidence of demonstration. On the contrary, as Locke has very well seen, the evidence of demonstration would not exist, if the evidence of intuition were not previously given: within these limits must be confined the criticism of Locke on the syllogism.

This same Chap. XVII. contains several passages, § 7th and the following, upon the necessity of other aid than that of the syllogism for making discoveries. Unfortunately, these passages promise more than they fulfil, and furnish no precise indication. To find this new aid, Locke had only to open the *Novum Organum*, wherein he would have found perfectly described, both sensible intuition and rational intuition, and especially induction: We are compelled to suspect that he had very little acquaintance with Bacon, when we see him, without being able to find it, groping after the new route opened more than half a century before, and already made so luminous by his illustrious countryman.

One of the best chapters of Locke is the XVIII., on *Faith and Reason*. Locke assigns in it the exact part to each; he indicates their relative office and their distinct limits. He had already said, at the end of Chap. XVII. § 24, that faith in general is so little contrary to reason, that it is the assent of reason to itself. "I think it may not be amiss to take notice, that however faith be opposed to reason, faith is nothing but a firm assent of the mind; which if it be regulated, as is our duty, cannot be offered to any thing but upon good reason, and so cannot be opposite to it."

And when he comes to positive faith, that is, to revelation, in spite of his respect, or rather by reason of his profound respect

for Christianity, and even while admitting the celebrated distinction between things according to reason, contrary to reason, and above reason (Chap. XVIII. § 7), he declares that no revelation, whether immediate or traditional, can be admitted contrary to reason. These are the words of Locke:

Ibid., § 5. "No proposition can be received for divine revelation, or obtain the assent due to all such, if it be contradictory to our clear intuitive knowledge. Because this would be to subvert the principles and foundations of all knowledge, evidence, and assent whatsoever; and there would be left no difference between truth and falsehood, no measures of credible and incredible in the world, if doubtful propositions shall take place before self-evident, and what we certainly know give way to what we may possibly be mistaken in. In propositions, therefore, contrary to the clear perception of the agreement or disagreement of any of our ideas, it will be in vain to urge them as matters of faith. They cannot move our assent under that or any other title whatsoever. For faith can never convince us of any thing that contradicts our knowledge. Because though faith be founded on the testimony of God (who cannot lie) revealing any proposition to us; yet we cannot have an assurance of the truth of its being a divine revelation greater than our own knowledge; since the whole strength of the certainty depends upon our own knowledge that God revealed it; which, in this case, where the proposition supposed revealed contradicts our knowledge or reason, will always have this objection hanging to it, viz., that we cannot tell how to conceive that to come from God, the bountiful Author of our being, which, if received for true, must overturn all the principles and foundations of knowledge he has given us; render all our faculties useless wholly destroy the most excellent part of his workmanship, our understandings."*

* I cannot refrain from giving, upon this important subject, the passage of the *Nouveaux Essais*, corresponding to that of Locke, a passage which entirely accords with the opinion which we have elsewhere more than once expressed. Leibnitz had even begun to question the celebrated distinction *according to reason and above reason*: "I find something to remark on your definition of that which is above reason, at least if you refer it to the received usage of this phrase; for it seems to me that, from the manner in which this definition is worded, it is much too one-sided.... I applaud you much when you wish to found faith upon reason; without this, why should we prefer the Bible to the Alcoran, or to the ancient books of the Brahmins? Thus our theologians and other learned men have recognized it, and it is this which has caused us to have such fine works on the truth of the Christian religion, and so many fine proofs which have been advanced against pagans and other infidels, ancient and modern. Thus learned persons have always regarded as suspicious those who have pretended that it is not necessary to trouble one's self about reasons and proofs, when believing is a subject of discussion; a thing impossible, in fact, unless to believe signifies to recite or repeat, and to let pass, without troubling ourselves, as many persons do, and as it is even the character of some nations more than others. This is why some Aristotelian philosophers of the fifteenth and sixteenth centuries, whose remains have since subsisted . . ., having wished to sustain two opposite truths, the one philosophical, the other theological, the last Council of Lateran, under Leo X., rightly opposed them. And a similar dispute formerly arose at Helmstadt between Hoffman, the theologian, and Martin, the philosopher; but with this difference, that the philosopher would reconcile philosophy with revelation, whilst the theologian would reject the use of it. But Duke Julius, the founder of the university, decided for the philosopher. It is true that in our times a person of highest eminence has declared that, in regard to articles of faith, it is necessary to shut the eyes in order to see clearly; and Tertullian somewhere says: This is true, for it is impossible; it is to be believed, for it is an absurdity. But if the intention of those who explain themselves in this way is good, the expressions are always extravagant, and may do harm. Faith is founded on motives of belief, and on the internal grace which immediately determines the mind. [This theological distinction of Leibnitz is, at bottom, our philosophical distinction between spontaneous reason and reflective reason.] It must be granted that there are many judgments more evident than those which depend upon these motives: some are more advanced in them than others, and there are even many persons who have never known, still less have weighed them, and who, consequently, have not even what might be called a motive of belief. But the internal grace of the Holy Spirit immediately supplies it . . . . It is true that God never gives it except when that which he causes to be believed is founded upon reason, otherwise he would destroy the means of knowing the truth; but it is not necessary that all those who have this divine faith should know those reasons, and still less that they should always have them before their eyes; otherwise simple people and idiots would never have true faith, and the most enlightened would not have it when they might have most need of it, for they cannot at all times recollect the reasons of belief. The question of the use of

I could wish to be equally satisfied with Chapter XIX., *On Enthusiasm*. But it seems to me that Locke has not sufficiently

fathomed his subject, and that he rather made a satire than a philosophic description.

What, in fact, is enthusiasm, according to Locke? It is: 1st, the pretension of attributing to a privileged and personal revelation, to a divine illumination made in our favor, sentiments which are peculiar to ourselves, and which are often nothing but extravagances; 2d, the still more absurd pretension of imposing upon others these imaginations as superior orders invested with divine authority, §§ 5 and 6. These are, it is true, the follies of enthusiasm; but is enthusiasm nothing but this?

Locke has elsewhere clearly seen that the evidence of demonstration is founded upon that of intuition. He has even said that in regard to these two kinds of evidence, the evidence of intuition is not only anterior to the other, but that it is superior to it, that it

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reason in theology has been greatly agitated, as much between the Socinians and those called Catholics in a more general sense, as between the Reformers and the Evangelicals .... We may say, in general terms, that the Socinians go too far in rejecting every thing that is not conformed to the order of nature, even whilst they might not prove its impossibility; but their adversaries also sometimes go too far, and push mystery as far as to the borders of contradiction, by which they do harm to the truth which they undertake to defend .... How can faith establish any thing that overturns a principle without which all belief, affirmation, or denial would be vain? .... But it seems to me that there remains a question which the authors of whom I have just spoken have not sufficiently examined, which is this: Suppose that, on one hand, the literal sense of a text of Holy Scripture is found, and that, on the other, is found a great appearance of logical impossibility, or at least a recognized physical impossibility, is it more reasonable to rely upon the literal sense or the philosophical principle? It is certain that there are passages in which we find no difficulty in departing from the letter, as when ... Here come in the rules of interpretation ... The two authors that I have just named (Videlius and Musæus) dispute still in regard to the undertaking of Kekerman, who wished to demonstrate the Trinity by reason, as Raymond Lully also had attempted before. But Musæus acknowledged with sufficient fairness that if the demonstration of the reformed author had been good and sound, he should have had nothing to say, and that he would have been right in maintaining that the light of the Holy Spirit could be illuminated by philosophy." Leibnitz speaks with force in regard to the employment of reason in theological questions, such as the salvation of pagans, and that of infants dying without baptism, and he concludes thus: "Good proves to us God is more philanthropic than men."

is the highest degree of knowledge. Chap. XVII. § 14. "Intuitive knowledge is certain, beyond all doubt, and needs no probation, nor can have any; this being the highest of all human certainty. In this consists the evidence of all those maxims, which nobody has any doubt about, but every man (does not, as is said, only assent to, but) knows to be true as soon as ever they are proposed to his understanding. In the discovery of, and assent to these truths, there is no use of the discursive faculty, no need of reasoning, but they are known by a superior and highe degree of evidence. And such, if I may guess at things unknown, I am apt to think that angels have now, and the spirits of just men made perfect shall have, in a future state, of thousands of things, which now either wholly escape our apprehensions, or which, our short-sighted reason having got some faint glimpse of, we in the dark grope after." I accept this proposition, whether it accords or not, as the case may be, with the general system of Locke. I add that intuitive knowledge, in many cases, for example, in regard to time, space, personal identity, the infinite, all substantial existences, as also the good and the beautiful, has, you know, this peculiarity, that it is founded neither upon the senses nor upon the consciousness, but upon the reason, which, without the intermediation of reasoning, attains its objects and conceives them with certainty. Now, it is an attribute inherent in the reason to believe in itself, and from this is derived faith. If, then, intuitive reason is above induction and demonstrative reason, the faith of reason in itself in intuition is purer, more elevated than the faith of reason in itself in induction and in demonstration. Recollect, also, that the truths which reason intuitively discovers are not arbitrary, but necessary; that they are not relative, but absolute: the authority of reason is therefore absolute, and it is a character of faith, attached to reason, to be absolute like reason. These are the admirable characters of reason, and of the faith of reason in itself.

This is not all: when we demand of the reason the source of this absolute authority which distinguishes it, we are forced to

recognize that this reason is not ours, nor, consequently, is the authority which belongs to it ours. It is not in our power to make the reason give us such or such a truth, or not to give them to us. Independently of our will, reason intervenes, and certain conditions being fulfilled, suggests to us, I was going to say imposes upon us, those truths. Reason makes its appearance in us, though it is not ourselves, and can in no way be confounded with our personality.* Whence then comes this wonderful guest within us, and what is the principle of this reason which enlightens us without belonging to us? This principle is God,† the first and the last principle of every thing. When the reason knows that it comes from God, the faith which it had in itself increases, not in degree, but in nature, as much as, thus to speak, as the eternal substance is superior to finite substance. Then there is a redoubling of faith in the truths which the supreme reason reveals to us in the midst of the shadows of time and in the limits of our feebleness.

Behold, then, reason become to its own eyes divine in its principle. This state of reason which listens to itself and takes itself as the echo of God upon the earth, with the particular and extraordinary characters which are attached to it, is what we call enthusiasm. The word sufficiently explains the thing: enthusiasm, as the breath of God within us,‡ is immediate intuition opposed to induction and demonstration, is primitive spontaneity opposed to the tardy development of reflection, is the apperception of the highest truths by reason in the greatest independence both of the senses and of our personality. Enthusiasm in its highest degree, and, thus to speak, in its crisis, belongs only to certain individuals, and to them only in certain circumstances; but in its most feeble degree, enthusiasm does not belong to such or such an individual, to such or such an epoch, but to human nature, in all men, in all conditions, and almost at every hour. It is enthusiasm which makes spontaneous convictions and revolutions, in small as well as great, in heroes and in the feeblest woman. Enthusiasm is the poetic spirit in all things; and the poetic spirit, thanks to God, does not belong exclusively to poets; it has been given to all men in some degree, more or less pure, more or less elevated; it appears especially in certain men, and in certain moments of the life of these men, who are the poets *par excellence.* Enthusiasm also makes religions; for every religion supposes two things: that the truths it proclaims are absolute truths, and that it proclaims them in the name of God himself, who reveals them to it.

Thus far all is well; we are still within the bounds of reason, for it is reason which is the foundation of faith and enthusiasm, of heroism, of poetry and religion; and when the poet and the priest repudiate reason in the name of faith and enthusiasm, they do nothing else, whether they know it or are ignorant of it,—and it is the affair neither of poets nor priests to render an account of what they do,—they do, I say, nothing else than put one mode of reason above the other modes of this same reason; for if immediate intuition is above reasoning, it none the less belongs to reason: we in vain try to repudiate reason, we always use it. Enthusiasm is a rational fact which has its place in the order of natural facts and in the history of the human mind; only this fact is extremely delicate, and enthusiasm may easily turn it into folly. We are here upon the doubtful border between reason and extravagance. This is the legitimate, universal, and necessary principle of religions, a principle which must not be confounded with the aberrations which may corrupt it. Thus disengaged and elucidated by analysis, philosophy ought to recognize it, if it wishes to recognize all the essential facts, all the elements of reason and humanity.

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* See first volume of this Series, *Introduction to the History of Philosophy*, Lectures 5 and 6, and 1st Series, *passim*.

† First volume of this Series, Lectures 5 and 6, and 1st Series, Vol. 2, Lectures 7 and 8, *God, the principle of necessary truths*; Lecture 13, *God, the principle of the beautiful*; Lecture 23, *God, the principle of the idea of the good*. Vol. 3, *Opening discourse*, p. 31.

‡ On enthusiasm, 1st Series, Vol. 2, Lecture 12, p. 138; 2d Series, Vol. 1, Lecture 6, etc.